



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 21, 2015

Tonya Brown
BASF Corporation, Agricultural Products
P.O. Box 13528
26 Davis Drive
Research Triangle Park, NC 27709

Subject: CSF/Label Amendment – revised basic CSF; new alternate CSF 1; label changes to remove “by mouth” and “Insignia” reference; Storage Stability and Corrosion Characteristics data
Product Name: Encartis Fungicide
EPA Registration Number: 7969-348
Application Date: May 12, 2014
Decision Number: 491308

Dear Ms. Brown:

The amended label/CSFs referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Please note the record for this product contains the revised CSFs approved with this submission:

- Basic CSF dated 12/23/2014
- Alternate CSF 1 dated 5/30/2014

Any CSFs other than those listed above are superseded/no longer valid.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Heather Garvie by phone at 703-308-0034, or via email at garvie.heather@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tony Kish". The signature is written in a cursive style with a large, looped "T" and "K".

Tony Kish Product Manager 22
Fungicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure: Stamped label; Product Chemistry Review, DP # 421277, dated 1/7/2015

EncartisTM fungicide

For disease control on golf course turfgrass

Active Ingredients*:

boscalid, 3-pyridinecarboxamide, 2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)- 2.20%
chlorothalonil (tetrachloroisophthalonitrile) 54.14%

Other Ingredients: 43.66%

Total: 100.00%

*Contains 0.244 pound of boscalid and 6.009 pounds of chlorothalonil per gallon.

EPA Reg. No. 7969-348

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUTION

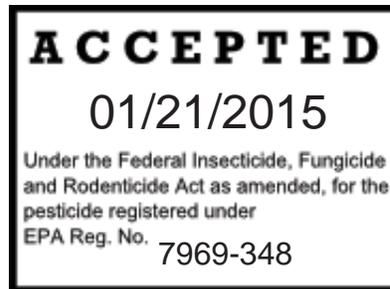
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Shake Well Before Using

Net Contents:



FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give anything to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.• Call a poison control center or doctor for further treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information at 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

In case of contact, immediately flush eyes with plenty of water. Get medical attention if irritation persists. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene, pvc, polyethylene, viton, natural rubber, and/or barrier laminate)
- Shoes plus socks

Discard clothing and other absorbant materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and put on clean clothing.

Environmental Hazards

This product is toxic to fish and aquatic invertebrates.

DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

Groundwater Advisory

Boscalid is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach to groundwater if used in areas where soils are permeable, particularly where the water table is shallow and may result in groundwater contamination.

Surface Water Advisory

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. For requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

This product is for golf course use only.

Encartis™ fungicide may only be used on golf course areas (golf course tees, greens, and fairways) and on turf produced for construction or renovation of golf course landscape.

NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

DO NOT enter or allow others to enter treated areas until sprays have dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

DO NOT store at temperatures less than 30° F or exceeding 50° F. Store in a dry, cool place away from heat or open flame.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of federal law. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

(continued)

STORAGE AND DISPOSAL (continued)

Container Handling (continued)

Triple rinse containers small enough to shake (capacity up to 50 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Encartis, a suspension concentrate (SC), contains the active ingredients boscalid and chlorothalonil. The active ingredients in **Encartis** belong to two classes of fungicides, a carboxamide and a multi-site mode of action fungicide for the control of certain diseases on golf course turfgrass. To maximize disease control, apply **Encartis** in a regularly scheduled preventative spray program and use in a rotation program with other effective fungicides. **Encartis** is most effective when applied preventatively; however, early curative control can be achieved for dollar spot.

Resistance Management

Encartis™ fungicide contains boscalid and chlorothalonil, a premix of a **Group 7** and a **Group M5** fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of target site **Group 7** and **Group M5**, such as the dicarboximides, sterol inhibitors, or benzimidazoles. Fungal isolates resistant to **Group 7** may eventually dominate the fungal population if **Group 7** is used predominantly and repeatedly in the same turfgrass area in successive years as the primary method of control for the targeted pathogen species, especially if resistance to **Group 7** fungicides is already present in the pathogen population. This may result in reduction of disease control by **Encartis** or other **Group 7** fungicides.

To maintain the performance of **Encartis** in turfgrass, **DO NOT** exceed the total number of sequential applications of **Encartis**. Follow label instructions regarding the sequential use of **Encartis**.

Resistance Management Advisory

The following instructions may delay the development of fungicide resistance:

1. **Limited sequential applications** - To maintain performance in golf course turfgrass, **DO NOT** make more than two (2) sequential **Encartis** applications; then alternate to another effective fungicide before reapplying **Encartis**.
2. **Tank mixtures** - Use tank mixtures with effective fungicides from different target site of action groups that are registered/permitted for the same use and that are effective against the pathogens of concern. Use at least the minimum labeled rates of each fungicide in the tank mix.
3. **Integrated Pest Management (IPM)** – Integrate **Encartis** into an overall disease and pest management program. Follow cultural practices known to reduce disease development. **Encartis** can be used in advisory (disease forecasting) programs that recommend application timing based on environmental factors favorable for disease development.
4. **Monitoring** - Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development. If **Encartis** appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative or local turfgrass expert for further investigation.

Restrictions and Limitations

- **Maximum yearly use rate - DO NOT** apply more than the maximum use rate per square foot (sq ft) per year as listed in **Table 2. Encartis™ fungicide Maximum Use Rate and Spray Volumes**.
- **DO NOT** apply more than two (2) sequential **Encartis** applications. Following a sequential application of

Encartis, **DO NOT** reapply until after another effective fungicide has been used.

- **DO NOT** apply through any type of irrigation equipment.
- **DO NOT** apply this product to turf for transplant purposes except for sod produced for golf course establishment or renovation.
- For use on golf course turfgrass only.
- This product cannot be used to formulate or reformulate any other pesticide product.

Tank Mixing with Other Products and Additives

Tank Mix Partners/Components

Encartis is compatible with most fungicide, insecticide, herbicide, and fertilizer products. If tank mixtures are used, follow the rate restrictions, label directions and precautions on all labels.

Physical incompatibility, reduced disease control, or turfgrass injury may result from mixing **Encartis** with fungicides, herbicides, insecticides, additives, or fertilizers. To improve control of specific diseases not listed on the label, **Encartis** may be tank mixed with other effective fungicides such as **Insignia® SC Intrinsic™ brand fungicide**, or **Trinity® fungicide**. Always read and follow label directions for both products when tank mixing.

Additives

When tank mixing **Encartis** with other pesticides, observe the more restrictive label limitations and precautions. No label dosage rates should be exceeded. **DO NOT** mix **Encartis** with any product containing a label prohibition against such mixing. **DO NOT** combine **Encartis** in sprayer tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. **DO NOT** combine **Encartis** with **Dipel® 4L**, **Latron™ AG-98** or **Latron™ B-1956**, as phytotoxicity may result from the combination when applied to golf course turfgrass. **DO NOT** tank mix **Encartis** with oil, or with any adjuvants which contain oil as their principal ingredient. When an adjuvant is to be used with this product, a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended. **DO NOT** use with **Copper-Count® N fungicide** in concentrated spray suspensions.

Due to the large number of additives or adjuvants that may be used, neither the manufacturer nor the seller has determined whether **Encartis** can be used without causing turf injury with all additives. Consult with a BASF Corporation representative or local agricultural authorities for more information concerning additives.

Compatibility Test for Tank Mix Components

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of specified label rate per acre.

1. **Water** - For 87 gallons per acre (2 gallons per 1000 sq ft) spray volume, use 14.4 cups (3.5 liters) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - Cap the jar and invert 10 cycles.
3. **Water-soluble products** - Cap the jar and invert 10 cycles.
4. **Emulsifiable concentrates** (oil concentrate or methylated seed oil when applicable) - Cap the jar and invert 10 cycles.
5. **Water-soluble additives** - Cap the jar and invert 10 cycles.
6. Let the solution stand for 15 minutes.
7. **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

Mixing Order

Limit amount of spray mixture prepared to that needed for immediate use.

1. **Water** - Agitate thoroughly clean sprayer tank 1/2 full of clean water.
2. **Products in PVA bags** - Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
3. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - Shake containers well prior to use. Consult BASF Representatives for additional information regarding agitation and recirculation.
4. **Water-soluble products**
5. **Emulsifiable concentrates** (such as oil concentrate or methylated seed oil when applicable)
6. **Water-soluble additives** (such as ammonium sulfate [AMS] or urea ammonium nitrate [UAN] when applicable)
7. Remaining quantity of water.

Maintain maximum constant agitation during application.

DO NOT allow mixture to stand for more than one (1) hour without agitation prior to application.

Application Instructions

Apply **Encartis™ fungicide** prior to or in the early stages of disease development and at the rates indicated in **Table 1. Encartis™ fungicide Application Rates and**

Intervals in 1 to 4 gallons of water per 1000 sq ft (44 to 174 gallons per acre, see **Table 2. Encartis™ fungicide Maximum Use Rate and Spray Volumes**) after mowing. Use the shorter specified application interval when prolonged favorable disease conditions exist. Repeat applications at the specified interval as necessary. **DO NOT** exceed the specified application rate or fail to comply with the use restrictions listed in the **Resistance Management and Restrictions and Limitations** sections. Make all applications according to the use directions that follow.

Actual length of disease control will vary depending on environmental conditions, disease pressure, and turfgrass management practices. Failure to follow directions and precautions on this label may result in turfgrass injury and/or inferior disease control.

Uses and Tolerances

For use on golf course turfgrass only. Due to variability within turfgrass species, application techniques and possible tank mixes, neither the manufacturer nor the seller has determined whether or not **Encartis** has adequate tolerance on all turfgrasses under all conditions. Therefore, apply the specified use rate of **Encartis** on a small test area under conditions expected to be encountered and monitor for any adverse effects before applying **Encartis** to the targeted area.

Application Use Rates

Maximum use rates are determined by the turf location on the golf course. Follow the application rates provided in **Table 1. Encartis™ fungicide Application Rates and Intervals** for application instructions for specific diseases. Follow the **Encartis** maximum use rates as provided in **Table 2. Encartis™ fungicide Maximum Use Rate and Spray Volumes** for golf course greens, tees, and fairways.

Cleaning Spray Equipment

Spray equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure turfgrass was used prior to **Encartis**.

Shake containers well prior to use. Consult BASF Representatives for additional information regarding agitation and recirculation.

Spray Instructions

- Calibrate sprayer prior to use.
- Apply **Encartis** with ground spray equipment.
- Apply **Encartis** using sufficient water volume and pressure for adequate coverage of the foliage.
- After application, allow foliage to dry prior to mowing.

Table 1. Encartis™ fungicide Application Rates and Intervals

Disease <i>Pathogen</i>	Use Rate Per Application (fl ozs product/ 1000 sq ft)	Use Rate Per Application (pints product/A)	Intervals (days)	Application Instructions*
Algae	3 to 4	8.2 to 10.9	14	When colonies of algae are well established, dry out the affected area. Once dry, spike or verticut to enhance turfgrass recovery in conjunction with Encartis . Repeat applications of Encartis may be necessary for turfgrass recovery. Begin applications prior to or in the early stages of disease development. Follow spray volume instructions for greens, tees, or fairways (refer to Table 2. Encartis™ fungicide Maximum Use Rate and Spray Volumes). Use a shorter application interval and/or higher rate when prolonged favorable disease conditions exist.
Anthracnose <i>Colletotrichum graminicola</i>	3 to 4	8.2 to 10.9	14	
Bentgrass dead spot <i>Ophiosphaerella agrostis</i>	4	10.9	14	
Brown patch <i>Rhizoctonia solani</i> , <i>R. zeae</i> , <i>R. Cerealis</i>	3 to 4	8.2 to 10.9	14	
Copper spot <i>Gloeocercospora sorghi</i>	4	10.9	14	
Dichondra leaf spot <i>Alternaria</i> spp.	4	10.9	14	
Dollar spot <i>Sclerotinia homoeocarpa</i>	3 to 4	8.2 to 10.9	14 to 21	
	4	10.9	21 to 28	
Gray leaf spot <i>Pyricularia grisea</i> , <i>P. oryzae</i>	3 to 4	8.2 to 10.9	14	
Leaf spot, Melting-out, Brown blight <i>Drechslera</i> spp., <i>Bipolaris sorokiniana</i> , <i>Curvularia</i> spp.	3 to 4	8.2 to 10.9	14 to 21	
Red thread <i>Laetisaria fuciformis</i>	3 to 4	8.2 to 10.9	14	
Stem rust (bluegrass) <i>Puccinia graminis</i>	4	10.9	14	

* **DO NOT** apply more than two (2) sequential applications of **Encartis**, then alternate to another effective fungicide before reapplying **Encartis**.

Table 2. Encartis™ fungicide Maximum Yearly Use Rate and Spray Volumes

Turf Areas and Application Volumes		
Maximum Yearly Use Rates (fl ozs/1000 sq ft/year)		Spray Volumes (gallons/1000 sq ft)
Greens	25.4	2 to 4
Tees	25.4	2 to 4
Fairways	12.7	1 to 4

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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Insignia and Trinity are registered trademarks of BASF.

Dipel is a registered trademark of Valent Biosciences Corporation.

Copper-Count N is a registered trademark of Mineral Research and Development Corporation.

Latron is a trademark of Dow AgroSciences LLC.

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NVA 007969-00348.20140414b. **NVA 2014-04-402-0123**
Supersedes: NVA 2012-04-402-0078

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The Chemical Company